



COMMONWEALTH of VIRGINIA

Department of Health
Division of Shellfish Sanitation
1500 East Main Street, Suite 109
Richmond, Virginia 23219

(804) 786-7937
Fax: (804) 786-5567

UPPER MACHODOC CREEK Growing Area # 1A King George County

Shoreline Sanitary Survey

Date: September 10, 2003

Survey Period: April 15 - June 16, 2003

Total Number of Properties Surveyed: 556

Surveyed By: Gary A. Wood

SECTION A: GENERAL

This survey area extends from Reference Point 1A at triangulation marker "Club Eccentric" on Mathias Point to Reference Point 1 just north of Rosier Creek, including the Potomac River shoreline between these two points, Gambo Creek (Hideaway Pond), Upper Machodoc Creek (Williams Creek, Deep Creek, Poplar Neck Creek), Black Marsh, and all of their tributaries east of U.S. Route 301.

The topography is characterized by ridges rising to approximately 150' at U.S. Route 301 towards the southern end of the survey area. Elevations in the northern part of the survey area around Mathias Point to the mouth of the Upper Machodoc Creek reach a maximum of 25' with steep bluffs along the Potomac River. Elevations near the mouth of the creek are typically 25' to 30' rising to 150' in the south near Spy Hill. Population is sparse to moderate, with the heaviest concentrations in the town of Dahlgren and the U.S. Naval Weapons Center. The naval base payroll and the services it obtains from the local community provide the basis for the local economy along with agriculture.

Meteorological data indicated that 1.36" rain fell April 15-30, 11.25" in May, and 2.85" June 1-16, 2003, for a total of 15.46 inches during the survey period.

In the last survey, conducted in 1996, two sewage treatment plants serving King George County schools were reported as Sewage Pollution Sources because both plants discharged into Upper Machodoc Creek. Since 1996, both these plants have been taken off line and the sewage routed to a new plant at Purkins Corner. This plant discharges into Pine Hill Creek, a tributary of Rosier Creek located in Growing Area 1. Because the discharge from the schools now occurs outside growing area 1A, it was not included in this report.

Also not included in this report is the sand filter at the Navy's Surface Warfare Center, which received non-contact cooling water and photo chemicals. The filter was closed in 1997, in accordance with a plan approved by the Department of Environmental Quality.

The current restriction on shellfish harvesting is Condemned Shellfish Area #36, Upper Machodoc Creek, revised effective 1 November 2002. Copies of the current condemnation notice and map are attached to this report.

Information in this report is gathered and used primarily by the Division of Shellfish Sanitation, Virginia Department of Health, in order to fulfill its responsibilities of shellfish growing area supervision and classification. Data in the report are also made available to other agencies participating in shellfish program activities and other interested parties.

Report copies are provided to the local health department for corrective action of deficiencies listed on the summary page in Section B. 2. and B. 3., and the Department of Environmental Quality, Water Regional Office for possible action at properties listed on the summary page in Section B.1.

This report lists only those properties that have a sanitary deficiency or have other environmental significance. Individual field forms with full information on properties listed in this report are on file in the Richmond office of the Division of Shellfish Sanitation and are available for reference until superseded by a subsequent survey of the area.

SECTION B: SEWAGE POLLUTION SOURCES

SEWAGE TREATMENT FACILITIES

23. **DIRECT** - Richard R. Potter, 15526 Machodoc Drive, King George 22485. Dwelling- Brown wood sided 2 story with brown trim. No contact. Aer-O-Flow sewage treatment system. System includes a sand filter and chlorine contact tank with discharge through 16-inch concrete pipe into Upper Machodoc Creek. The discharge pipe was in poor repair at the time of inspection, but there was no residue or odor. No discharge permit has been issued for this system.
27. **DIRECT** - King George County Service Authority, P.O. Box 246, King George 22485. County sewage treatment plant. The plant currently serves approximately 2,500 people with a design flow of .325 MGD. It consists of a rotating screen, fine bar screen, a 3-channel oxidation ditch, flash mixer for alum addition, clarifiers, chlorine contact tank, dechlorination in a polishing pond, and a cascade step aerator. The plant is currently being renovated and upgraded in accordance with the attached Engineering Appendix. Discharge is to Williams Creek in accordance with VPDES Permit Number VA0026514. See Engineering Appendix for more information on the current facility and the proposed upgrades.
31. **DIRECT** - U.S. Navy Surface Warfare Center, 17320 Dahlgren Road, Dahlgren 22448. Sewage treatment plant for the navy base. The plant serves approximately 5,200 people with a design flow of .72 MGD. It consists of fine screens, dissolved air flotation, primary clarifiers, secondary clarifiers, sludge aeration basins, chlorination, dechlorination, ultra violet disinfection and a constructed wetlands. Discharge is to Upper Machodoc Creek in accordance with VPDES Permit Number VA0021067. See Engineering Appendix for more information.

ON-SITE SEWAGE DEFICIENCIES

1. CONTRIBUTES POLLUTION - Dennis H. and Bonnie S. Gallahan, 17467 Owens Landing Road, King George 22485. Dwelling- Red brick one story with red shutters and white trim. No contact. Open septic tank, and;

CONTRIBUTES POLLUTION (Kitchen or Laundry Wastes) - Cracked top to grease trap. Effluent routed to woods via a ditch. Sanitary notice issued 5-1-03 to field # 215.
2. CONTRIBUTES POLLUTION - Location: 17530 Melissa Lane, King George 22485. Owner: Mildred Rollins, 12026 Kings Highway, King George 22485. Dwelling- White vinyl siding 2 story with black shutters and white trim. No contact. Open septic tank. Sanitary notice issued 4-30-03 to field #205.
3. CONTRIBUTES POLLUTION (Kitchen or Laundry Wastes) - Location: 3257 Mathias Point Road, King George 22485. Owner: Bwano A. & Lois C. Carroll, 5609 Lambert Drive, Temple Hills, MD 20748. Dwelling- White asbestos shingle siding 2 story with white trim. No contact. Laundry waste piped to ground through 2" white PVC pipe. Sanitary notice issued 4-23-03 to field #132.
4. CONTRIBUTES POLLUTION - Shawn Burrell, 3374 Lenzi Lane, King George 22485. Dwelling- Yellow vinyl siding 1 story with green shutters and white trim. 3 persons. Effluent to ground in ditch to right rear of house. Sanitary notice issued 4-22-03 to field #122.

7. CONTRIBUTES POLLUTION (Kitchen or Laundry Wastes) - Location: 17183 Gambo Creek Road, King George 22485. Owner: Sterling L. Bumbrey, 5409 Bumbrey Lane, King George 22485. Dwelling- Pinkish asbestos shingle siding 1 story with mauve awnings. 4 persons. Laundry drains to ground through 1 ½ inch white PVC pipe. Sanitary notice issued 4-23-03 to field #125.
8. CONTRIBUTES POLLUTION - Occupant: Angela Karamé, 17195 Gambo Creek Road, King George 22485. Owner: Stanley or Vivian H. Palivoda, P.O. Box 1073, Dahlgren 22448. Dwelling- Yellow aluminum siding 1 story with white awnings. 2 persons. Effluent to ground over drainfield. Sanitary notice issued 4-23-03 to field #126.
10. CONTRIBUTES POLLUTION - Occupant: Avanti Family Restaurant, 5811 James Madison Parkway, King George 22485. Owner: Hanif Y. Vahora. Business. Red brick 1 story with white trim. 8 employees. Cracked septic tank. Sanitary notice issued 6-5-03 to field #94.
12. CONTRIBUTES POLLUTION - Niranjan or Ranjan Patel, King George Motel, 8179 James Madison Parkway, King George 22485. Business: 1 story red brick motel. 2 employees and up to 40 guests per night. Cracked septic tank lid, repaired before end of survey. No sanitary notice issued.
13. NO FACILITIES - Occupant: Ethel Scott, 8395 James Madison Parkway, King George 22485. Owner: Elmer and Marceline Morris, P.O. Box 1, King George 22485. Dwelling- Blue wood siding 1 story with white trim. 4 persons. Portable toilet on property. Sanitary notice issued 4-15-03 to field #32.
14. CONTRIBUTES POLLUTION - Location: 8175 Chestnut Drive, King George 22485. Owner: Chestnut Hill Park, 612 Shepard Street, Fredericksburg 22401. Dwelling- White mobile home with blue shutters and trim. No contact. Effluent to ground over drainfield. Sanitary notice issued 4-15-03 to field #15.
16. CONTRIBUTES POLLUTION - Calvin and Carol Burns, 15261 Ridge Road, King George 22485. Dwelling- Tan stucco 3 story with white trim. 2 persons. Unapproved top to septic tank. Owner repaired prior to completion of survey. No sanitary notice issued.
17. CONTRIBUTES POLLUTION - Location: 16219 Ridge Road, King George 22485. Owner: Norman R. Marders, 16204 Ridge Road, King George 22485. Dwelling- Yellow aluminum siding 2 story with white trim. No contact. Unapproved top to septic tank. Sanitary notice issued 5-7-03 to field #248.
18. CONTRIBUTES POLLUTION, ***DIRECT*** - William J. Dunn, 17015 Good Hope Road, King George 22485. Dwelling- white asbestos shingle siding 1 story with white trim. 2 persons. Effluent flows down steep slope to an unnamed tributary of Upper Machodoc Creek. Sanitary notice issued 5-7-03 to field #256.
19. CONTRIBUTES POLLUTION (Kitchen or Laundry Wastes) - Steve Ostafy, 9456 Tetotum Road, King George 22485. Dwelling- White vinyl siding 2 story with green shutters. 2 person. Effluent to ground from grease trap. Sanitary notice issued 5-9-03 to field #271.

POTENTIAL POLLUTION

- None-

SECTION C: NON-SEWAGE WASTE SITES

INDUSTRIAL WASTES

- 32 thru 39. ***DIRECT*** - Naval Surface Warfare Center, Dahlgren 22448. Storm water runoff from various sources at the Naval Surface Warfare Center, under discharge permit VA0073636. Storm water discharges at 8 locations (points 32 through 39 on the chart) to the Upper Machodoc, Black Marsh (and thence to the Potomac River), and/or Gambo Creek. Pollutants include dissolved copper, calcium chloride, petroleum products and other residue from industrial operations on the base. See Engineering Appendix for more information.
40. Naval Surface Warfare Center, Building 1425, Dahlgren 22448. Hazardous storage waste site. A variety of hazardous wastes are temporarily stored at this site behind a fence and under cover. Materials include solvents, acids, paints, coolants, waste petroleum products and other chemicals that have industrial applications. Materials are shipped for disposal within 90 days. The Department of Environmental Quality inspects this facility annually but it is not required to have a permit to operate.

SOLID WASTE DUMPSITES

5. James M. Bumbry, 17071 Gambo Creek Road, King George 22485. Dwelling- White block 1 story with gray shutters. No contact. Approximately 3 acres of junked autos, boats, RVs, portable toilets and miscellaneous items, closely packed.
9. Location: Reed Air Conditioning, 15057 Dahlgren Road, King George 22485. Owners: Clifford C. & Mary S. Reed, P.O. Box 1257 Dahlgren 22485. Business- White block 1 story. Air conditioners and other appliances sold and serviced. 2 employees. Approximately 3 acres of densely packed junked appliances, i.e., AC units, washers, dryers, refrigerators, ranges, ovens plus ½ dozen junked vehicles.
15. Location: 8475 James Madison Parkway, King George 22485. Owner: Alfred J. or Mary D. Landino, 13331 Poplar Neck Road, King George 22485. Business- Vacant red brick 1 story with yellow trim, former used car lot and service station. No contact. Junked vehicles, scrap metal, construction waste, tires, engines, batteries, etc., bulldozed into ditch behind building. Ditch flows to Upper Machodoc Creek. Approximately 1 acre of material.

SECTION D: BOATING ACTIVITY

MARINAS

28. Dahlgren Marine Works, (Don Paul) P.O Box 704 Dahlgren 22448. Commercial marina. 2 employees. 57 slips/ 28 dry storage spaces. Present at the time of survey were 20 pleasure boats less than 26', 12 pleasure boats between 26' and 39', and 4 pleasure boats over 39'; and in dry storage there were 16 pleasure boats under 26' feet and 2 pleasure boats between 26' and 39'. Boating services provided are ramp, hoists, electric and water. Sanitary facilities provided are 1 commode, 1 lavatory and 1 shower for men, and 1 commode, 1 lavatory and 1 shower for women. A portable pump out for boat holding tanks and a dump station are provided. Dahlgren Sanitary District STP services the dump station and other sanitary facilities.
29. Naval Surface Warfare Center Yacht Club, Dahlgren 22448. Yacht club for navy base personnel. 2 employees. Fifty-two (52) slips and space for 10 boats in dry storage. Present in the water at the time of survey were 18 pleasure boats less than 26 feet, and 11 pleasure boats between 26 and 39 feet. Six pleasure boats less than 26 feet were in dry storage. Boating services provided are water, electricity, and a ramp. Sanitary facilities provided are 1 commode, lavatory, shower and urinal for men, 2 commodes, 2 lavatories and 1 shower for women. Sewage is disposed of in the base sewage treatment plant. Boat holding tank pump-out service is available on a year-round basis using a portable system. A dump station is available for portable toilets.
30. Naval Surface Warfare Center Yardcraft boat dock, Dahlgren 22448. Dock for navy workboats. Present at the time of survey were 4 boats less than 26' and 4 workboats between 26' and 39'. Boating services provided are water, electricity and a hoist. Sanitary facilities include a dump station and a bunkered storage area for waste containers awaiting dumping or other disposal.

OTHERS PLACES WHERE BOATS ARE STORED

21. Machodoc Estates, Machodoc Landowners Association, Joe Call, Manager. Machodoc Creek at Route 218. Private pier for members of the landowners association. No contact. 6 slips and 2 moorings. No boats present at the time of survey. No boating services provided. Sanitary facilities provided are 1 privy for men and 1 privy for women.
22. Stanley Rollins Seafood, (Stanley Rollins) 16249 Little Ferry Road, King George 22448. Dock for crab and oyster boats owned and operated by Stanley Rollins and member of his immediate family. Present at the time of survey were 1 workboat less than 26' and 2 workboats between 26 and 39'. Boating services are water and electric. No sanitary facilities are provided.
26. Williams Creek Townhouse Homeowners Association, Dahlgren Road, Dahlgren 22448. Private pier for townhouse residences. No contact. 3 moorings. There were no boats present at time of survey. No other boating services or sanitary facilities are provided.

UNDER SURVEILLANCE

20. Community boat ramp and pier, Sandy Beach Lane, King George 22448. Private ramp and pier for use of residence in the surrounding community. No other boating services for sanitary facilities are provided. No boats were present at the time of the survey.

Section E: CONTRIBUTES ANIMAL POLLUTION

6. Location: 17127 Gambo Creek Road, King George 22485. Owner: James A. Bumbry and Dorothy Frazier, 8630 Dorie Court, Elk Grove, CA 95624. 25 dogs chained and/or penned on a drainage ditch to Gambo Creek.
11. Edgar Planas and Brenda K. Nicholson, 6361 James Madison Parkway, King George 22485. Dwelling- Brown vinyl siding 1 story with red shutters. 4 persons. 30 domestic fowl, 1 goat and 2 rabbits present at time of survey. Manure washes from ground surface approximately 50 yards from Upper Machodoc Creek from an elevation of approximately 25 feet.
24. William H. and Cary Washington, 6255 Winsor Road, King George 22485. Dwelling- White wood sided 2 story with black shutters. 2 persons. 80 to 100 cattle. Manure rots in field approximately 500 yards from Upper Machodoc Creek at an elevation of 100 feet.
25. Location: 6081 Winsor Road, King George 22485. Owner: David L. Henderson and B.G. Stephenson, 4157 Chain Bridge Road, Fairfax 22485. White wood sided 2 story with white trim. 1 person. 8 horses and 25 domestic fowl. Manure rots in field approximately 300 yards from Upper Machodoc Creek at an elevation of 100 feet.

SUMMARY

AREA #1A
UPPER MACHODOC CREEK
September 10, 2003

SECTION B: SEWAGE POLLUTION SOURCES

1. SWEAGE TREATMENT FACILITIES

3 - DIRECT - #23, 27, 31

0 - INDIRECT - None

3 - B.1. TOTAL

2. ON-SITE SEWAGE DEFICIENCIES

Correction of deficiencies in this section is the responsibility of the local health department.

1 - CONTRIBUTES POLLUTION, DIRECT - #18

9 - CONTRIBUTES POLLUTION, INDIRECT - #1, 2, 4, 8, 10, 12, 14, 16, 17,

0 - CP(Kitchen or Laundry Wastes), Direct - None

4 - CP(Kitchen or Laundry Wastes), Indirect - #1, 3, 7, 19

0 - NO FACILITIES, DIRECT - None

1 - NO FACILITIES, INDIRECT - #13

15 - B.2. TOTAL

3. POTENTIAL POLLUTION -

Periodic surveillance of these properties will be maintained to determine any status change.

0 - POTENTIAL POLLUTION - None

SECTION C: NON-SEWAGE WASTE SITES

1. INDUSTRIAL WASTE SITES

8 - DIRECT - #32 through 39

1 - INDIRECT - #40

9 - C. 1. TOTAL

2. SOLID WASTE SITES

0 - DIRECT - None

3 - INDIRECT - #5, 9, 15

3 - C. 2. TOTAL

SECTION D: BOATING ACTIVITY

3 - MARINAS - #28, 29, 30

3 - OTHER PLACES WHERE BOATS ARE MOORED - #21, 22, 26

1 - UNDER SURVEILLANCE - #20

7 - D. TOTAL

SECTION E: CONTRIBUTES ANIMAL POLLUTION

0 - DIRECT - None

4 - INDIRECT - #6, 11, 24, 25

4 - E. TOTAL

Virginia Department of Health
Division of Shellfish Sanitation

Upper Machodoc Creek
1A
Shoreline Sanitary Survey

King George County

Date: August 10, 2003
Survey By: G.A. Wood
Number of Properties Surveyed: 556

0 0.25 0.5 1 Miles



Legend

Shoreline Survey Deficiencies

POLLUTION TYPE

- ★ Sewage Treatment Facility - Direct
- ★ Sewage Treatment Facility - Indirect
- ★ Sewage Treatment Facility - Unknown
- Contributes Pollution - Direct
- Contributes Pollution - Indirect
- Contributes Pollution - Unknown
- ▲ Contributes Pollution (Kitchen or Laundry wastes) - Direct
- ▲ Contributes Pollution (Kitchen or Laundry wastes) - Indirect
- ▲ Contributes Pollution (Kitchen or Laundry wastes) - Unknown
- No Facilities - Direct
- No Facilities - Indirect
- No Facilities - Unknown
- ◆ Potential Pollution
- Industrial Wastes - Direct
- Industrial Wastes - Indirect
- Solid Waste Dumpsite - Direct
- Solid Waste Dumpsite - Indirect
- Solid Waste Dumpsite - Unknown
- ⚓ Boating Activity
- ▲ Contributes Animal Pollution - Direct
- ▲ Contributes Animal Pollution - Indirect
- ▲ Contributes Animal Pollution - Unknown
- AS Stormwater Runoff

Sewered areas

TYPE

- ▨ Sewered areas

